ISD News and Views

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Editorial

In this issue of *News & Views*, we will continue to respond to suggestions we received from our ageny interviews last summer. First, this issue include issue includes an index of the 1989 articles. You will find the Index behind the News section.

Dave Marshall, Information Center Bureau Chief, has written a feature article regarding Subscription Services. This is another area in which we received many comments.

And third, starting this year, *News & Views* will be published monthly. We hope it will privde you with more timely information.

Remember, if there is anything you would like to see in the newsletter, let me know.

~Melanie Coughlin

NEWS

State Data Network/Mainframe

New Mainframe Laser Printer

Over the years, we have seen many changes to the mainframe both in software and hardware. One aspect of ISD's mainframe services which has not seen significant change is the print services offered at the central computer center. The models of printers which we have used over the years and the technology which those printers use has changed, however, the appearance and quality of the printed output have remained very much the same. The 6670 laser printer offered superior print quality and the ability to use cut sheet paper. Due to its speed limitations and history of unreliability, it proved to be impractical for printing anything other than small jobs.

ISD has acquired a new IBM model 3825 laser printer that will provide some exciting new print capabilities and superior print quality. This printer is one of a family of IBM laser printers which utilize IBM's Advanced Function Printing (AFP) system. This printer uses cut sheet paper and is rated at a speed of 58 pages per minute. It has duplex capability (able to print on both sides of a page). It can also print 2-up and 4-up, that is it can print two or four logical pages on each side of a physical sheet of paper. It is capable of printing multiple type styles within each print job. It offers the use of images, graphics, logos, and signatures. We will now be able to create special forms electronically, replacing the need for many single part,

preprinted special forms. With this kind of flexibility and superb print quality, we are offering users the ability to produce a truly professional looking report and at the same time offer reduced print costs. While we have not determined the billing algorithm for this printer, we expect the cost to be less than those charged for the line printers for most jobs. This is largely due to the difference in paper costs between cut sheet paper and continuous forms.

If you have jobs printed at the central computer center, we suggest that you review your printing needs. You may find this new printer advantageous for some of your print jobs. If you would like additional information about this printer or would like help in setting up your jobs to use it, please contact Mick Plovanic at 444-3335.

Multi-Session Application on Mainframe

Multi-Session Application on Mainframe During the upcoming year, mainframe network users will be converted to a new network access application called CL/SuperSession (CL/SS). If you are a 3270 user accessing the mainframe via a native 3270 device or a PC emulating 3270 (EXTRA!, IBM 3270, or Novell SNA gateway) you will be affected. All affected users currently should be familiar with the "Montana Map" (sometimes referred to as NetMon) application which is displayed on their terminal when they are not logged onto specific applications such as IDMS, CICS, or TSO. Supersession will replace the map application and the ACF2 logon to TSO. In addition, logons will be added

to or replaced in most other CICS and IDMS regions.

Supersession is a sophisticated multi-session application from Candle Corp. Candle Corp. is a highly respected and widely known software company in the large IBM MVS mainframe arena. The following is a list of the major features and benefits of CL/SS:

- Single point of access via ACF2 into host. End user logs onto the mainframe (ACF2) only once via CL/SS, CL/SS handles all subsequent ACF2 logons to selected applications (IDMS, CICS, TSO, etc) under CL/SS. The user can be working (via hotkey) in multiple regions at the same time on the same logon I.D.

- Signon and application selection dialogues. Customized panels and selection menus are available so that the end user only sees application choices they are authorized to use. This includes logical application menuing, allowing users to see logical application names without knowing the applications technical network identification. (For example, PM or Calendar instead of TEXTCICS, SBAS instead of DCPROD)

- Help, Tutorial and Network News as well as network broadcast feature (to selected groups, users, terminals)

- Session Portability allows sessions to be virtual, or "independent" of physical terminals. With this feature, users can resume a session they have established on another physical terminal without terminating the session and all the child sessions

- Sharing of 3270 printers throughout the network. CL/SS has the ability to print any screen on any terminal to any printer in the network

- REXX like programming language. Candle's Structured Session Procedure Language (SSPL) with its open-ended design allows creation of dialogues between the end user and multiple applications. Data can be collected from several applications and displayed on one physical terminal with one stroke of the enter key

- SAA/CUA compatible

- Conference facility that allows either one-on-one or multi-person training sessions by phone anywhere on the network. Trainees observe the actual online application running at their terminal while listening to the trainer on the phone. Conference facility also allows reviewing of previously displayed screens again at any time without affecting the operation of the application

- Pushing/pulling screens. If authorized to do so, user can send (push) a current snapshot of their screen to another user, or request (pull) a snapshot of a screen from another user to their screen. This gives the support staff the ability to view user screens while taking a problem report and respond to questions with a demonstration

- Network Event Recording and Accounting (audit trail capabilities) and Network Operator Facility to monitor and obtain status of users, applications, and resources

- 3270 data stream optimization. By compressing redundant and repeating characters, CL/SS can reduce network line traffic by as much as 70% for all applications running under its control

As evidenced by the preceding list of features, CL/SS is a major step forward in improving usability of the state mainframe resources. It will be used as the foundation for any mainframe based office automation tools in the future.

Any time a tool that impacts all mainframe users is implemented, planning becomes very important. ISD will work with user agencies in the development of the implementation plan. To start this planning phase off, ISD will be contacting selected people in each agency to get acquainted, demonstrate CL/SS, and solicit feedback. These sessions will be held during late January.

If anyone has any questions relating to this topic or the January sessions, contact Terry Kramer at 444-2556.

Microcomputer

Prepayroll on Novell Networks

The Prepayroll program is setup to store its files in a root-directory. For security reasons, it was not acceptable to store those files in the root-directory of a Netware file server. Novell has implemented a fix that solves that problem. There has been an upgrade to the NET3 and IPX files. These fixes allow the network administrator to create a sub-directory on the network. The users (payroll clerks) can then map to a root-directory drive (alias the subdirectory).

If you would like to get a copy of the updated Netware files, please send a formatted diskette to Sherry of the Information Center. Please enclose your name and agency and be sure to tell her what the diskette is for.

WordPerfect 5.1 Support

WordPerfect Corporation released WordPerfect 5.1 in December 1989. Central Stores is now carrying the new version. The cost to upgrade from any previous release (2.2, 3.0, 4.0, 4.1, 4.2 or 5.0) to 5.1 is $91.00. This price is for any type of software - standalone, network server or add-on). You can purchase your upgrades directly from WordPerfect Corporation for $87.50. we are encouraging people to upgrade through Central Stores or WordPerfect Corporation. Address for WP Corp:

> WordPerfect 5.1 Update
> 1555 N. Technology Way
> Orem, UT 84057

The Information Center will be providing dual support - WordPerfect 5.0 and 5.1. At this time we have no intention of dropping support for 5.0 in the near future. Classes have already been scheduled. Please check the Training Section for more information on specific classes.

ICB will provide evaluation copies of WordPerfect 5.1 for anyone interested. Also, if you have any questions you can call Melanie at 2973.

System Requirements:

- WordPerfect 5.1 still requires 384K of memory.

- A hard disk is highly recommended, although it can run on a dual floppy system if the disk drive are 720K or greater.

- Because the installation can be customized to fit each user's need the hard disk storage requirements vary from 2.2 to 3.5 megabytes.

- The new version does have the capability of using a mouse for the new optional pull-down menus.

New Features:

- Pull-Down Menus and Mouse Support-WordPerfect Corporations has pleased many people by adding mouse capabilities. If you are not a mouser, the pull-down menus can be accessed with the press of a single key. If you are a traditional WordPerfect user and are not interested in the pull-down menus, the function keys are still there.

- Tables-for those people who dread using tabs in WordPerfect. By selecting the Table feature, a boxed spreadsheet appears on the screen. With a few simple keystrokes, you can define the way you want the table to look. If a column is not the right size - no problem - just

use the Control arrow keys to widen or shorten it. Tables allows you to draw lines around the table to add emphasis in certain areas.

- Merge Codes-can now be used within headers, footers, footnotes, endnotes and text boxes. You can hide the display of merge codes during normal text editing. Have you ever had a problem trying to figure out where a field ends and where the next one begins in the secondary file? Good news, no more ^R, ^E, ^F and so on. The codes have changed to make it much easier for the beginning user. Now, when you press the Merge Codes key you are prompted with words (Field, End Record, Keyboard, etc.). Also, the left side of the status will tell you what field you are in.

- Character Sets-Ever wanted to print a special character just to find out your printer wasn't capable? If you are using any of the hundreds of printers supported by WordPerfect, your worries are over. When you specify a character that is not in your printer, 5.1 will create it as a graphic character. This new feature allows you to print characters from many different languages, scientific and mathematical characters. One word of warning - you will see a time delay. Because it is a graphic character, WordPerfect will take a little longer to search its file to create the character.

- Tabs-There is a new type of tab setting. The new tab is called relative. This means if a tab is set at specific amount from a margin and the mar-

gins are changed, the tabs will change automatically. Example: Margins are set at one inch left and right. You set a tab at 2.5". If you change the margins to .75" the tab will change to 2.25".

- Forms-the dreaded forms!! Word-Perfect 5.0 could be very frustrating, as some of you will testify, regarding forms. Now, under the Format, Page, Paper Size/Type you initially define the forms you will use. From then on the Paper Size/Type menu will only show you the forms you have defined.

- Labels-Another feature of WordPerfect that until now could be very cumbersome. Under the Format, Page, Paper Size/Type menu there is an option for Labels. When this is selected, you specify how many labels are across the page, total labels on the page, and the space between labels. WordPerfect 5.1 will then format the labels correctly without headaches.

- Context-Sensitive Help-Nothing was more frustrating than being three levels into a menu, and realizing you need help. You had to back all the way out of the menus, go into help, find the information you needed and start over in the menus. 5.1 is now context-sensitive. This means you can invoke the help feature from any menu, no matter how deep you are into that menu and be given the information on that feature.

- Hyphenation-Much, much better. The new hyphenation is dictionary-based and more accurate. Also the

Speller and Hyphenation dictionaries have been combined to save some space on the hard disk.
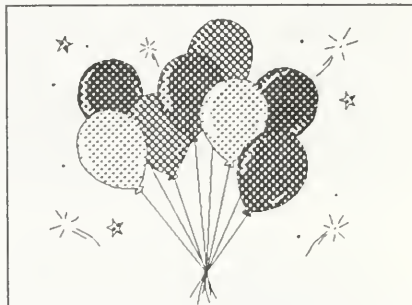
This is a new WordPerfect 5.1 Clip-Art Image

TERM CONTRACT

Hewlett Packard Laser Printers

On the new term contract for Hewlett Packard Laser Jet Printers, with Oregon Digital, please be aware that HP Laser Printers ordered, <u>do not come with cables</u>, but may be ordered separately from Oregon Digital for $20 each (serial (specify XT or AT compatible) or parallel, 6 ft.). Cables may also be obtained from local and catalog vendors, and may range from $10 to $15 in cost.

HP IID Fonts

The HP IID comes with the following internal fonts:

Courier Medium, 10 & 12 point   Courier Bold, 10 & 12 point
Courier Italic, 10 & 12 point   Line Printer Medium, 8.5 point

It is also shipped with one cartridge which contains the following fonts:

Times Roman Medium, 8 & 12 point   Times Roman Bold, 12 point
Times Roman Italic 12 point   Helvetica Bold, 14 point

Optional Fonts Which Can Be Ordered Separately

The <u>Pro Collection</u> cartridge does include the above cartridge fonts in addition to Letter Gothic, Prestige Elite, Courier and Line Printer.

The <u>Persuasive Presentations</u> cartridge is not currently supported by WordPerfect. They are in the progress of writing drivers for this cartridge. We do not know when the drivers will be available.

Note: PFS:Professional File Version 2 does not currently have a printer driver for the HP IID. The driver will be available in the next release of PFS. Unfortunately, we do not know when Software Publishing Corporations plans on releasing it.

Distribution of Term Contracts

The following term contracts have been fully distributed:

CONTRACT SUBJECT	CONTRACT #	VENDOR
PC Compatib/Prter Maint.	240-B	Computer Systems & Maint.
HP Laser Jet Printers	234-B	Oregon Digital
IBM PC's/Prters/Maint.	202-B	IBM
Zenith PC's	228-B	Zenith
Acer PC's/products	229-B	ISC

Please call Anita Buchanan (x2575) in the Purchasing Bureau, to see where in your agency copies are being sent, if they are not getting to the proper people. Anita can make any necessary changes to the distribution list.

Multiple changes in the renewed term contracts delayed their distribution until late December. We apologize for any inconvenience this may have caused.

Note on the ISC Term Contract

Novell offers a NetWare Assurance software maintenance program, whereby for an annual fee, customers receive the latest updates to their current NetWare operating systems. A NetWare Assurance Program upgrade may be ordered as a term contract item. Current prices are available from the Resource Management Unit, but will not be published due to the frequency of changes. (The Assurance Program pricing is expected to change with each new NetWare upgrade that is introduced.)

IBM Renewal

The current IBM contract, number 202-B, expires February 28, 1990. The renewal Terms and Conditions are currently being negotiated. Provided below is a listing of items anticipated for deletion from the contract renewal, as the items have experienced price increases and therefore cannot be renewed. Agencies needing to order any of the following items are encouraged to do so before the February 28 contract expiration. After March 1, agencies may purchase these items by normal bidding procedures used for non-term contract items.

ITEMS ANTICIPATED FOR DELETION FROM IBM T/C

MODEL	F/C	DESCRIPTION
8550-ZZZ	7833	PS/2 XMA Mem Module Kit 2MB
4869-001		PS/2 Ext 5.25 Diskette, 360KB
3363-A11		External Optical Disk 200MB
8512-001		PS/2 14" Color Display

MODEL	F/C	DESCRIPTION
8514-001		PS/2 16" Color Disp (1024x768)
5871-AAA	6287	Sys/36/38 Emulation Conv Kit
5871-AAA	3255	Remote 5250 Emulation Pgm 2.0
8525-CO2		PS/2 Mod 25 Coll S/S Mono
8525-KO2		PS/2 Mod 25 Coll Enh Mono
8525-CO5		PS/2 Mod 25 Coll S/S Color
8525-KO5		PS/2 Mod 25 Coll Enh Color
8530-021		**PS/2 Model 30 - 20MB Disk**
5150-ZZZ	7833	2MB Mem Kit (for 8635 & 3619)
4865-001		3.5 Ext Dkt Drive - PC/XT
4865-002		3.5 Ext Dkt Drive - AT
3363-A01		External Optical Disk PC/XT/AT
5871-AAA	4201	GPIB Programming Support
5871-AAA	4202	DAC Programming Support
5151-001		Monochrome Display
4202-003		**Proprinter III XL 65-320 cps 14"**
5150-ZZZ	4927	**X24 Sheetfeed Attachment**
8530-ZZZ	4001	X24 Fontset Option
5150-ZZZ	4928	**XL24 Sheetfeed Attachment**
5150-ZZZ	2067	Serial Communications Cable
8228-001		**Multi-station Access Unit**
8218-001		Token Ring Copper Repeater
5871-AAA	0956	Tech Reference for DOS 3.3
5871-AAA	0885	PS/2 Collegiate Kit
5871-AAA	0812	Technical Reference 0809/10

The **bolded** items above are those most frequently ordered.

Most of the items listed on pages 10-11 of the current term contract under the headings "Coaxial Attachment - PC/XT/AT" and "Local Area Network - PC-Net & Token Ring" will be deleted, however the list is too extensive to include. Please call the Resource Management Unit with any specific questions.

New Term Contracts

A Request for Information (RFI) for PC products is being planned for release to vendors in the March 1990 timeframe. This will be the first step in a process to re-compete the PC Compatibles currently under contract, as the Zenith and Acer contracts expire October 31, 1990. Please contact the Resource Management Unit with any product and/or vendor names you would like added to the RFI mailing list. Points of contact would be helpful.

As a result of the interviews conducted last summer, the Information Center found that agencies had a number of concerns and problems with the current method of recovering costs through the "subscription fee". These comments included a dislike for the the subscription recovering any costs, a dislike for the subscription recovering LAN costs, a concern for the amount of service received for the price, and others.

It is certainly true that the subscription causes problems to both ISD and the agencies. While we agree that we can improve upon the subscription concept (and we will try to), we also believe that it is the easiest compromise available today. We'd like to respond to most of those concerns by spending a little time trying to answer three questions: why do we have a subscription in the first place?, what does it pay for?, and where are we going with it?

Why do we have a subscription?

The Information Center is chartered with two major missions.

- To set standards and provide direction for state microcomputer and end user computing products.

- To provide those services that make sense to provide centrally or are requested by agencies.

Because the Information Center is part of Information Services Division, we are funded through the ISD proprietary account, whose sole source of revenue is rates charged for ISD services. (To correct one misunderstanding, the Information Center has never been general fund appropriated). Information Center rates must recover costs of both of these services (or missions), not just direct support.

In the early 1980's when the microcomputer support in ISD was small it was paid for entirely by the fees agencies paid for mainframe processing. As the microcomputer group grew from one person to the 16 people it is today, that "mainframe subsidy" began to grow substantially. It caused a problem by making it appear to agencies that microcomputer service was free and that mainframe rates were high. This further accelerated agency microcomputer demands, which further inflated mainframe rates. It was decided that microcomputer service had to begin paying its own way and that mainframe rates needed to more closely reflect their actual cost.

Four basic cost recovery scenarios were considered in order to recover the costs of microcomputer services.

- General Fund appropriation was eliminated from consideration quickly because microcomputer service is needed by all funding sources and it is not appropriate for the State General Fund to provide that to Federal and other funded programs.

- An "Acquisition Tax" was considered on all computer and data communications equipment purchases by agencies. By charging an agency 2-5% of what they spend on equipment the Information Center could recover its costs. This approach emphasizes recovery of the "control and coordination" costs in the Information Center. Unfortunately it does not take into account the workload in software or support. Agencies that buy the most don't necessarily need the most support.

- A "per hour" charge (similar to Systems Development work) was also considered. By charging $30 per hour, for example, the Information Center could recover costs for the work it did. This approach emphasizes the recovery of support costs. It has three major problems.

  - It requires setting up a huge time accounting system in both ISD and the agencies. ISD employees must track every hour of time spent. This is very difficult in an environment where much of the work is done in "5 minute" phone calls. Agencies must track time spent by ISD to assure that they are being billed appropriately.

  - It requires agencies to get approval to spend funds every time they have a question. A secretary with a Word Perfect question would have to get approval to call ISD to get her problem solved. It is our belief that this alone would make the service unworkable.

  - Rates would be high in comparison to other organizations because we would need to charge for "control, coordination and standardization" costs as overhead in a service rate. For example, paying $30 per hour to get Lotus assistance would include helping pay for the cost of establishing Term Contracts.

- The last option looked at was a subscription charge. By negotiating an amount of required service at the beginning of a year, an agency could have a reliable cost to work with and get services with a minimum of hassle. It has the advantage of encouraging agencies to use ISD services and of being easy to plan and budget for both ISD and the agency. It also can include a fee to pay for the control and coordination responsibilities that the Information Center has.

It has several disadvantages.

- It covers both control and coordination overhead and service. This means that the agencies pay more for the service than it alone might be worth. To reduce the impact of this problem ISD currently continues to subsidize the Information Center (about 50%) with mainframe rates.

- Agencies can demand more "service" than they are paying for causing workload problems in ISD and response problems for other agencies.

- If agencies demand too much, rates will have to increase the next year to keep pace with the resources ISD is adding in response to their requests.

- It is sometimes difficult to compare what any two agencies pay for a service. Because agencies pay similar amounts based on the number of PC's, an agency can subscribe while their needs are high and not subscribe when their needs are low, yet rates are based on average needs. To reduce this problem, subscriptions were budgeted for a biennium and negotiated on a yearly basis.

While the subscription service is not perfect it was chosen as the best way of recovering costs at this time.

What does the subscription cover?

The subscription generally covers those services received from the Information Center. Specifically it covers a training discount, all "hot-line" support, equipment pool discount, and various other miscellaneous services. It also covers use of ISD supported systems like the Budget Development System, electronic mail and calendaring, and PC-SAS licenses. Lastly provision of token ring LAN boards was added as part of the subscription. Obviously it is a "catch all" charge. Why?

When the subscription service began the primary service the Information Center provided was hot line support. Because we realized that this is a "soft" need and very hard to justify in a budget we tried to add "hard" dollar savings in the form of discounts to make the service easier to "justify". In addition, encouraging training would reduce support requirments. This made it easy to say "we'll make it easy to train you, so we don't have to answer the phone all the time". We also realized that we would be changing Information Center Services rapidly and dramatically, but we weren't sure how. We were sure the changes would be too quick to use the budget process to fund each change. The subscription gave us a reliable way of recovering costs and agencies a dependable way of budgeting, while allowing us to change and adjust services quickly. This allowed us to add Budget Development System and PC - SAS services without adding new charges and rates to agency budgets. It also allowed us to add LAN services.

It must also be stated that the subscription covers a part of division overhead and the cost of providing standards and review of technological directions (like establishing term contracts) and understanding agency needs.

Where is the subscription going in the future?

We believe that the subscription service in the Information Center needs a radical restructuring. Our approach to this restructuring is being discussed by the agencies in the Data Processing Advisory Council. Whatever is decided will be included in the budget process for the next biennium. Essentially what we are recommending is that for those terminals and microcomputers attached to a network (any network), ISD will provide the network for a basic monthly fee (like a telephone). Costs for control and coordination of personal computers, connection to the mainframe, as well as for all support on those stations would be included in that monthly rate. ISD provided applications (like electronic mail) may be included in that rate or in an optional add-in service for each device. Microcomputers not connected to a network, but requiring service from ISD would be able to subscribe individually (not as an agency) to hot line support only at a lower rate. All discounts (for example, training) would be eliminated. The current mainframe subsidy would also be eliminated, resulting in a net increase in microcomputer service and network charges and a net decrease in mainframe rates.

The subcription will continue to change and evolve, this is only a brief look at some of the options considered and available. If you have comments on ISD's directions regarding the recovery of costs in general, or microcomputer support and control and coordination costs in particular, please call Dave Marshall at 2920.

Training   Information

All classes will be held in Room 25 of the Mitchell Building and there will be a limit of 12 participants per class, unless otherwise announced. Demonstrations (minis) will also be held in Room 25 but the limit will be 20 participants.

The cost of the classes are as follows:

Class Name	Subscriber	Non-Subscriber
Introduction to TSO/SPF	$ 50.00	$ 50.00
Introduction to JCL	150.00	150.00
Culprit for Programmers	250.00	250.00
Culprit Programming for IDMS	100.00	100.00
Personal Services/PC	30.00	30.00
Personal Manager	30.00	30.00
Beginning Microcomputer Skills	50.00	70.00
Fundamentals of DOS	50.00	70.00
Intermediate DOS	50.00	70.00
Introduction to WordPerfect 5.0	75.00	105.00
Advanced WordPerfect 5.0	75.00	105.00
Conversion WordPerfect 4.2 to 5.0	50.00	70.00
Introduction to WordPerfect 5.1	75.00	105.00
Conversion of WordPerfect 5.0 to 5.1	50.00	70.00
* Introduction to Lotus 1-2-3 (Rel 2.2 or 3.0)	75.00	105.00
* Advanced Lotus 1-2-3 (Rel 2.2 or 3.0)	75.00	105.00
Conversion of Lotus 2.01 to 2.2	50.00	70.00
Conversion of Lotus 2.01 to 3.0	50.00	70.00
* Spreadsheet Design and Documentation	50.00	70.00
* Intro. to Macros for Lotus 123	35.00	45.00
* Intermediate Macros for Lotus 123	35.00	45.00
* Advanced Macros for Lotus 1-2-3	35.00	45.00
* Introduction to Lotus 1-2-3 Databases	100.00	140.00
* Micro Database Concepts and Design	50.00	70.00
* Beginning R:Base for DOS	100.00	140.00
* Intermediate R:Base for DOS	100.00	140.00
PFS:Professional File	40.00	60.00
Freelance	40.00	60.00
Using Novell Network	25.00	35.00
Demonstrations	FREE	FREE

* New rates as of January 1, 1990

Training   Calendar

Data Network Classes

Jan 17	Introduction to TSO/SPF
Jan 22-25	Introduction to SAS
Jan 29-Feb 1	Introduction to CULPRIT Programming
Feb 6 am	Computer Orientation
Feb 7 am	State Telephone Training
Feb 15 am	On-Line Query - Mini
Feb 15 pm	On-Lin Query - Mini

Microcomputer Classes

Jan 26	PFS:Professional File Version 2.0
Jan 29	Beginning Microcomputer Skills
Jan 31 & Feb 1	Introduction to Lotus 1-2-3 (Rel 3.0)
Feb 5	Database Concepts & Design
Feb 8 & 9	Beginning R:BASE for DOS
Feb 20	Beginning Microcomputer Skills
Feb 21 am	Conversion of Lotus 1-2-3 Rel 2.01 to 2.2
Feb 21 pm	Conversion of Lotus 1-2-3 Rel 2.01 to 3.0
Feb 26 & 27 pm	Advanced WordPerfect 5.0
Mar 5 & 6 am	Introduction to Lotus 1-2-3 (Rel 3.0)
Mar 7 am	Conversion of WordPerfect 5.0 to 5.1
Mar 7 pm	Conversion of WordPerfect 5.0 to 5.1
Mar 8 & 9 am	Introduction to Lotus 1-2-3 (Rel 2.2)
Mar 13 & 14 am	Introduction to WordPerfect 5.1

NEW CLASSES

With the new release of WordPerfect 5.1, the Information Center is in the process of developing three new classes. As usual, there will be an Introduction and Advanced WordPerfect 5.1. These two classes are intented for those people totally new to WordPerfect 5.1. For those people who are already familiar with WordPerfect 5.0 we will also provide a Conversion class. For more details please check the Word Processing Training Section.

FREE TRAINING

STATE COMPUTER SYSTEM ORIENTATION: presented by Randy Holm of the Information Center

DATE:	February 6, 1990
TIME:	9:00 am to 10:30 am

Introduces the State Data Center's services and capabilities. Includes an overview of ISD's organization, hardware, software and communications network. A tour of the computer center is included.

ON-LINE QUERY (OLQ): presented by Jane Black Eagle of the Information Center

DATE:	February 15, 1990 (2 classes)
TIME:	9:00 am to 12:00 noon
	1:00 pm to 4:00 pm
PREREQUISITE:	Some knowledge of the structure of an IDMS database is recommended.

Here's a free class on an easy-to-use utility for accessing data from an IDMS database. OLQ can be used to display or print reports quickly and easily. Reports may be simple or complex, with selection criteria, sorting, control breaks, totalling, etc. It is an overlooked utility that can be useful for both programmers and end users. This class will cover the menu-driven mode of OLQ.

INTRODUCTION TO CULPRIT PROGRAMMING: presented by Jeff Holm of the Information Center

DATE:	Jan 29	8:30 am to 12:00 noon
	Jan 29	1:00 pm to 4:00 pm
	Jan 30 & 31 and Feb 1	8:30 am to 4:00 pm
PREREQUISITE:	TSO/SPF skills, must have a TSO logonid	
LOCATION:	DNRC, Yellowstone Room	
COST:	$150 -Introduction to Culprit Programming	
	$25 - JCL brief	

This is a custom class 3-day class covering the introduction and basic areas of CULPRIT. The first half day will be an optional introduction to JCL. The class has emphasis on lecture and student exercises, and will be directed toward end users and programmers. The class will cover the basic aspects of generating reports from standard files, and will not go into more advanced topics such as database accesses, match files, etc. Culprit topics covered in the class will include:

- Generating a Basic Report from Standard Files
- Enhancing and formatting the Report
- Generating Multiple Reports
- Sequencing Report Output
- Selective Processing
- Programming Logic
- Performing Arithmetic Operations
- Directing Processing Flow
- Generating Total Lines
- Generating Subtotals and Sort Levels
- Selective Printing of Output Lines

In the JCL portion of the class the participants will learn the basics of how to write job control language to control the execution of programs on the state mainframe computer. This class is a highly condensed version of the standard JCL class. You will learn how to submit jobs; the differences in executing a program versus a procedure; how to read old datasets or create new ones; how to control where and how reports are printed; and our installation conventions for the usage of the computer tapes and disk datasets.

Manuals will be available in class. Orders will be taken for the purchase of any manual at the class.

INTRODUCTION TO TSO/SPF (formerly Basic Terminal Skills): presented by Jane Black Eagle of the Information Center

DATE: January 17, 1990
TIME: 8:30 am to 4:00 pm
PREREQUISITE: 3270nd (interactive class on terminal operation)

INTRODUCTION TO TSO/SPF is a hands-on workshop to provide experience using computer terminals and the SPF editor. The SPF editor is an easy-to-learn menu used to enter data and programs into the State of Montana central computer system. Entering data, changing data and submitting programs for execution are covered in detail. Also covered are SPF's utility functions and how to track job output.

This course is essential for state government personnel using terminals tied into the State of Montana central computer. This course is a prerequisite for many other ISD classes.

INTRODUCTION TO SAS: presented by Randy Holm of the Information Center

This course has been designed in a modular fashion to accommodate both mainframe and PC SAS users. New SAS users will want to take modules 1 & 3 (mainframe) or 2 & 3 (pc). Modules 4 and 5 are optional and intended only for users interested in those specific features.

DATE & TIME:	Jan 22, 8:30-10:30	Module 1, Running mainframe SAS (JCL, Display Manager, etc)
	10:45-12:00	Module 2, Running PC/SAS
	Jan 22, 1:00-4:30	
	Jan 23, 8:30-4:30	Module 3, Intro to SAS for mainframe
	Jan 24, 8:30-4:30	and pc users
	Jan 25, 8:30-12:00	Module 4, SAS Micro-to-Host Link
	1:00-4:30	Module 5, Designing online applications using SAS/FSP (Full Screen Product), taught on mainframe only.

PREREQUISITES: Depends on modules selected.

                  Mainframe SAS: Introduction to TSO/SPF, TSO logon ID, TSO library.

                  PC SAS: Basic Microcomputer Skills

Although SAS stands for Statistical Analysis System, it is a very powerful general purpose tool for data analysis (not just statistics). It can be used to capture, edit, and report data. In just a few minutes, one can design and program a full screen data entry application for a terminal using SAS/FSP. Reports and statistical procedures can be coded to summarize and print the information entered.

This course is intended to teach the basics of SAS as a general tool and its use to prepare data for analysis by SAS statistical procedures. Throughout the class period, students will develop and program a variety of SAS features, including basic statistical procedures. The class does not attempt to teach statistics and prior knowledge of statistics is not necessary.

Prices for the SAS Modules:
      Module 1 = $ 25.00; Module 2 = $ 25.00; Module 3 = $125.00;
      Module 4 = $25.00; Module 5 = $ 25.00

MICROCOMPUTER CLASSES

BEGINNING MICROCOMPUTER SKILLS: presented by the staff of the Information Center or the Computer School

DATE: January 29, 1990
                        February 20, 1990
TIME: 8:15 am to 4:30 pm each day
PREREQUISITE: None

This course will give participants brief hands-on experience with microcomputers. Topics to be covered:

The machine	Spreadsheets and graphics
The operating system	File Management
Word processing	Communications

All class time will be spent using microcomputers and software. The participant will learn what microcomputers can do and how to approach them with a positive attitude. This course or its equivalent is a prerequisite for other microcomputer courses.

WORDPROCESSING CLASSES

ADVANCED FEATURES OF WORDPERFECT 5.0: presented by the staff of the Information Center or the Computer School

DATE:	February 26 & 27, 1990
TIME:	8:30 am to 3:30 pm <u>on first day</u>
	8:30 to 12:00 noon <u>on second day</u>
PREREQUISITE:	Beginning Microcomputer Skills
	Introduction to WordPerfect 5.0

For those already using WordPerfect 5.0, the advanced class will cover footnotes, column generation, sorting capabilities, dual document editing, changing fonts within a document, creating style sheets and master documents, keyboard layout, compose and graphics.

CONVERSION OF WORDPERFECT 5.0 TO 5.1: presented by Melanie Coughlin of the Information Center

DATE:	March 7, 1990 (2 classes)
TIME:	8:30 am to 12:00 noon **AND** 1:00 pm to 4:30 pm
PREREQUISITE:	Beginning Microcomputer Skills and Introduction to WordPerfect

This class is designed for those people with previous experience in WordPerfect 5.0 and are facing WordPerfect 5.1. The class is a hands-on experimenting with the brand new features implemented into the new version and the features that have changed.

INTRODUCTION TO WORDPERFCT 5.1: presented by the staff of the Information Center or the Computer School

DATE:	March 13 and 14, 1990
TIME:	8:30 am to 3:30 pm on first day
	8:30 am to 12:00 noon on second day

This class is designed for those users new to WordPerfect 5.1. No prior experience with WordPerfect is necessary. This class will lead participants from the basics (creating, editing and printing. Progressively advanced features (formatting, spell check, block functions and others) will also be covered.

SPREADSHEET CLASSES

INTRODUCTION TO LOTUS 1-2-3 RELEASE 2.2: presented by the staff of the Information Center or the Computer School

DATE:	March 8 & 9, 1990
TIME:	8:30 am to 4:30 pm <u>each day</u>
PREREQUISITE:	Beginning Microcomputer Skills

This class is designed for people with little or no Lotus 1-2-3 experience. This class will concentrate on using 1-2-3 Release 2.2 to design, create, edit and print spreadsheets and to create graphics. Some intermediate features such as the new Allways Add-In product will be used to enhance the printing of spreadsheets and graphs.

Class will consist of instructions and hands-on practice with available lab time to build spreadsheets of participant's choosing.

INTRODUCTION TO LOTUS 1-2-3 RELEASE 3.0: presented by the staff of the Information Center or the Computer School

DATE:	January 31 & February 1, 1990
	March 5 & 6, 1990
TIME:	8:30 am to 4:30 pm <u>each day</u>
PREREQUISITE:	Beginning Microcomputer Skills

This class is designed for people with little or no Lotus 1-2-3 experience.

This class will cover design, creation, printing and editing of 1-2-3 Release 3.0's 3-dimensional spreadsheets. Connecting these spreadsheets with use of formulas will also be included. Also, several graphic features, use of multiple spreadsheets within a single file and ability to have multiple files open at the same time will be incorporated.

Class will consist of instructions and hands-on practice with available lab time to build spreadsheets of participant's choosing.

CONVERSION FROM LOTUS 2.01 TO 2.2: presented by the staff of the Information Center.

DATE: February 21, 1990
TIME: 8:30 am to 12:00 noon each day
PREREQUISITE: Beginning Microcomputer Skills and Introduction to Lotus 1-2-3
                        Rel. 2.01

This class is designed for anyone upgrading from 2.01 to 2.2

Emphasis will be placed on new features of 2.2 worksheets such as:
- referencing data from separate worksheet files
- UNDO feature
- search/replace of formulas or data
- set or reset width of range of columns
- auto creation of backup files
- new setting sheets to display information for printing, graphing, defaults and various database settings

Also covered will be some new graphic enhancements such as:
- legends wrapping to 2 or more lines
- staggering X axis labels
- grouping data (Quick Graph, Multiple graph legends and data labels)

Along with the above, spreadsheet printing using the new Allways Add-In package will be experimented with. Class consists of demonstrations and hands-on practice.

CONVERSION FROM LOTUS 2.01 TO 3.0: presented by the staff of the Information Center

DATE: February 21, 1990
TIME: 1:00 pm to 4:30 pm each day
PREREQUISITE: Beginning Microcomputer Skills and Introduction to Lotus 1-2-3
                        Release 2.01

This course is designed for anyone upgrading from 2.01 to 3.0. Emphasis will be placed on new features of 3.0. Some of the features included will be:

- 3-D spreadsheets (up to 256 spreadsheets in same file)
- Connecting spreadsheets with formulas
- Using multiple files at same time (up to 256 spreadsheets)
- Window graphing
- Printing graphs directly from spreadsheet

Class consists of demonstrations and hands-on practice.

INTRODUCTION TO PFS:PROFESSIONAL FILE VERSION 2.0: presented by Jane Black Eagle of the Information Center

DATE: January 26, 1990
TIME: 8:30 am to 4:30 pm
PREREQUISITE: Beginning Microcomputer Skills

The PFS:Professional File software is an easy to use file management system.

This course will give the participant hands-on experience creating databases demonstrating the flexibility of this software in storing, retrieving, and updating a large amount of related information.

MICRO DATABASE CONCEPTS AND DESIGN: presented by Randy Holm of the Information Center

DATE: February 5, 1990
TIME: 8:30 am to 4:30 pm
PREREQUISITE: Beginning Microcomputer Skills

This class is designed to give participants a primary understanding of what a relational database is and how it compares to other products like Lotus 1-2-3 and PFS:Professional File. The class teaches database design techniques and is a prerequisite for other database classes offered by the Information Center.

BEGINNING R:BASE:: presented by Jane Black Eagle or Jeff Holm of the Information Center

DATE: February 8 & 9, 1990
TIME: 8:30 am to 4:30 pm each day
PREREQUISITE: Beginning Microcomputer Skills and Micro Database Concepts and Design

This class will give participants hands-on experience creating a database and developing a simple application with R:Base System V. The application will include database updates, queries, and simple forms and reports generation. "Prompt by Example" and "Express" will be used.

COMMUNICATION AND NETWORK CLASSES

Telephone Station User Training: presented by Nancy Lonz of the Telecommunications Bureau.

DATE: February 7, 1990
TIME: 8:30 am to 10:00 am
PREREQUISITE: None

This class is designed to familiarize new employees or refresh current employees with the features and use of the state telephone system. Also discussed will be the different calling capabilities available and the dialing plan. This is an interactive class combining demonstrations and hands-on usage of the features and the dialing plan.

ISD CLASS ENROLLMENT APPLICATION
COMPLETE THIS APPLICATION IN FULL AND
RETURN IT TO THE INFORMATION CENTER BUREAU
PRIOR TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc Sec Nbr (for P/P/P): _____

Agency & Division: _____

Mailing Address: _____

_____

Phone: _____

How have you met the required prerequisites for this
course? Explain giving the class(es) taken, Information
Center tutorial(s) completed, and/or experience.

_____

_____

BILLING INFORMATION/AUTHORIZATION

Are you an ISD subscribing agency: _____

ISD Billing Number (5 digits): _____

Authorized Signature: _____

**FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS CANCELLA-
TIONS ARE MADE THREE DAYS BEFORE THE DATE FOR EACH CLASS.**

DEPARTMENT OF ADMINISTRATION
INFORMATION SERVICES DIVISION
INFORMATION CENTER BUREAU
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HELENA, MT 59620